

<b>RTO/SB/08A</b> <b>SECOND SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> (use as many sheets as necessary)				<b>Complete if Known</b>	
				Application Number	10/811,593
				Filing Date	March 29, 2004
				Confirmation Number	2857
				First Named Inventor	Muhammad Anzar et al.
				Group Art Unit	1651
Examiner Name	V. Efremova				
Sheet	1	of	2	Attorney Docket No.	MTC 2002.1

### U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No. <sup>1</sup>	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY
		Number	Kind Code (if known)		
TG	52	3,005,756	A	VanDemark, et al.	10-24-1961
TG	53	3,791,384	A	Richter et al.	01-12-1974
TG	54	4,267,268	A	Nelson, Jr., et al.	05-12-1981
TG	55	4,474,875		Shrimpton, W.	10-02-1984
TG	56	6,309,815	B1	Tash et al.	10-30-2001

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		Office	Number <sup>4</sup>	Kind Code (if known)			
TG	57	WO	02/41906	A	Pharmacia Corporation	05-30-2002	
TG	58	WO	2004/087177	A	Monsanto Technology LLC	10-14-2004	
TG	59	WO	2004/088283	A	Monsanto Technology LLC	10-14-2004	

### OTHER ART – NON PATENT LITERATURE DOCUMENTS

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TG	60	BAUMBER, J., et al., "The Effect of Reactive Oxygen Species on Equine Sperm Motility, Viability, Acrosomal Integrity, Mitochondrial Membrane Potential, and Membrane Lipid Peroxidation," 2000, J. Andrology, Vol. 21(6), pp. 895-902	
TG	61	BENCIC, D.C., et al., "Carbon Dioxide Reversibly Inhibits Sperm Motility and Fertilizing Ability in Steelhead (Oncorhynchus mykiss)," 2000, Fish Physiology and Biochemistry, Vol. 23(4), pp. 275-281	
TG	62	BOATMAN, D.E., et al., "Bicarbonate Carbon Dioxide Regulation of Sperm Capacitation Hyperactivated Motility and Acrosome Reactions," 1991, Biol of Reprod, Vol. 44(5), pp. 806-813	
TG	63	BRUEMMER, J.E., et al., "Effect of Pyruvate on the Function of Stallion Spermatozoa Stored for up to 48 Hours," J Anim Sci, 2002, Vol. 80*1), pp. 12-18	

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TG	64	DENNISTON, D.J., et al., "Effect of Antioxidants on the Motility and Viability of Cooled Stallion Spermatozoa," J. Reprod Fert Supp 56, 2001, pp. 121-126	
TG	65	GARCIA, M.A., et al., "Development of a Buffer System for Dialysis of Bovine Spermatozoa Before Freezing III. Effect of Different Inorganic and Organic Salts on Fresh and Frozen-Thawed Semen," 1989, Theriogenology, Vol. 31(5), pp. 1039-1048	
TG	66	GRAVES, C.N., et al., "Metabolism of Pyruvate by Epididymal-Like Bovine Spermatozoa," 1964, J Dairy Sci, Vol. 47(12), pp. 1407-1411	
TG	67	GRAVES, C.N., et al., "Metabolic End-products of Anaerobic Spermatozoan Metabolism," 1966, Nature, Vol. 211, pp. 308-309	
TG	68	KAROW, A.M. et al., "Effects of Temperature, Potassium Concentration, and Sugar on Human Spermatozoa Motility: A Cell Preservation Model from Reproductive Medicine," 1992, Cryobiology, Vol. 29, pp. 250-254	
TG	69	LODGE, J.R., et al., "Carbon Dioxide in Anaerobic Spermatozoan Metabolism," 1968, J Dairy Sci, Vol. 51(1), pp. 96-103	
TG	70	SALISBURY, G.W., "Reversal by Metabolic Regulators of CO2-induced Inhibition of Mammalian Spermatozoa, 1959, Proc Soc Exp Biol Med, Vol 101(1), pp. 187-189	
TG	71	SALISBURY, G.W. et al., "Chapter 16: Extenders and Extension of Unfrozen Semen," Physiology of Reproduction and Artificial Insemination of Cattle, 2nd Ed., 1961, W.H. Freeman and Company, pp. 445 and 464.	
TG	72	International Search Report for PCT/US2005/010598 dated June 27, 2005, 5 pgs.	
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TG	74	International Search Report for PCT/US2005/010599 dated December 12, 2005, 9 pgs.	

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		Number	Kind Code <sup>2</sup> (if known)		
TG	1	4,362,246		Adair	12-07-1982
	2	5,135,759	A	Johnson et al.	08-04-1992
	3	5,658,751	A	Yue et al.	08-19-1997
	4	5,798,276	A	Haugland et al.	08-25-1998
	5	5,985,216	A	Rens et al.	11-16-1999
	6	6,071,689	A	Seidel et al.	06-06-2000
	7	6,130,034	A	Aitken	10-10-2000
	8	6,149,867	A	Seidel et al.	11-21-2000
	9	6,263,745	B1	Buchanan et al.	07-24-2001
	10	6,368,786	B1	Saint-Ramon et al.	04-08-2002
	11	6,372,422	A	Seidel et al.	04-16-2002
	12	6,395,305	B1	Buhr et al.	05-28-2002
	13	6,524,860	B1	Seidel et al.	02-25-2003
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TG	15	GB	2145112	A	Milk Marketing Board	02-03-1985	
	16	WO	99/33956	A1	XY, Inc.	07-08-1999	
	17	WO	00/54026	A1	Hattings-KS	09-14-2000	
	18	WO	01/37655	A1	XY, Inc.	05-31-2001	
	19	WO	01/51612	A	Istituto Sperimentale Italiano	07-19-2001	
	20	WO	02/41906	A2	Pharmacia Corporation	05-30-2002	
TG	21	WO	02/043574	A3	Seidel et al.	06-06-2002	
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TG	22	Arndt-Jovin et al., "Analysis and Sorting of Living Cells According to Deoxyribonucleic Acid Content," Jour. Histochem. and Cytochem., 1977, 25(7), pp. 585-589					
TG	23	D'Occhio, M., "Sexing of Sperm and Embryos: Use of Sexed Sperm in AI, IVF, ICSI and Graft," Animal Breeding Use of New Technologies, Chapter 19, pp. 247-264, Kinghorn, van der Werf and Ryan, Eds.,					
TG	24	Dresser et al., "Analyses of DNA Content of Living Spermatozoa Using Flow Cytometry Techniques," Jour. Reprod. and Fert., 1993, 93, pp. 357-365					
TG	25	Ericsson et al., "Flow Cytometric Evaluation of Cryopreserved Bovine Spermatozoa Processed Using a New Antibiotic Combination," Theriogenology, 1990, 33(6), pp. 1211-1220					
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TG	26	Farrell et al., "Quantification of Bull Sperm Characteristics Measured by Computer-Assisted Sperm Analysis (CASA) and the Relationship of Fertility," Theriogenology, 1998, 49(4), pp. 871-879	
	27	Foote et al., "Motility and Fertility of Bull Sperm in Whole Milk Extender Containing Antioxidants," Animal Repro. Sci., 2002, 71(1-2), pp. 13-23	
	28	Garner et al., "Viability Assessment of Mammalian Sperm Using SYBR-14 and Propidium Iodide," Bio. of Reprod, 1995, 53, pp. 276-284	
	29	Gordon et al., "Genetic Transformation of Mouse Embryos by Microinjection of Purified DNA," Proc. Natl. Acad. Sci., 1980, 77(12), pp. 7380-7384	
	30	Guthrie et al., "Flow Cytometric Sperm Sorting: Effects of Varying laser Power on Embryo Development in Swine," Mol. Reprod. and Develop., 2002, 61(1), pp. 87-92	
	31	Johnson et al., "Modification of a Laser-Based Flow Cytometry for High-Resolution DNA Analysis of Mammalian Spermatozoa," Cytometry, 1986, 7, pp. 268-273	
	32	Johnson, L.A., "Sex Preselection in Swine: Altered Sex Ratios in Offspring following Surgical Insemination of Flow Sorted X- and Y-Bearing Sperm," Reprod. Dom. Anim., 1991, 26, pp. 309-314	
	33	Johnson, L.A., "Sex Preselection by Flow Cytometric Separation of X and Y Chromosome-Bearing Sperm Based on DNA Difference: A Review," Reproduction, Fertility and Development, 1995, 7(4), pp. 893-903	
	34	Johnson, L.A., "Advances in Gender Preselection in Swine," Jour. of Reprod. and Fert., Proceedings of the Fifth International Conference on Pig Reproduction, Suppl. 52, 1997, pp. 255-266	
	35	Johnson et al., "Enhanced Flow Cytometric Sorting of Mammalian X and Y Sperm: High Speed Sorting and Orienting Nozzle for Artificial Insemination," Theriogenology, 1998, 49(1), p. 361	
	36	Johnson et al., "Sex Preselection: High-Speed Flow Cytometric Sorting of X and Y Sperm for Maximum Efficiency," Theriogenology, 1999, 52, pp. 1323-1341	
	37	Johnson, L.A., "Sexing Mammalian Sperm for Production of Offspring: the state-of-the-art," Anim. Reprod. Sci., 2000, 60-61, pp. 93-107	
✓	38	Maxwell et al., "Chlortetracycline Analysis of Boar Spermatozoa After Incubation, Flow Cytometric Sorting, Cooling, or Cryopreservation," Mol. Reprod. and Develop., 46, 1997 pp. 408-418	
TG	39	Morell et al., "Sexing of Sperm by Flow Cytometry," The Veterinary Record, 1988, pp. 322-324	

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TG	40	Rath et al., "Production of Piglets Preselected for Sex Following In Vitro Fertilization with X and Y Chromosome-Bearing Spermatozoa Sorted by Flow Cytometry," Theriogenology, 1997, 47, pp. 795-800	
TG	41	Salisbury and Graves, "Substrate-free Epididymal-like Bovine Spermatozoa," J. Reprod. Fertil., 1963, 6, pp. 351-359	
TG	42	Seidel et al., "Artificial Insemination of Heifers with Cooled, Unfrozen Sexed Semen," Theriogenology, 1998 49(1), p. 365	
TG	43	Seidel et al., "Insemination of Heifers with Sexed Sperm," Theriogenology, 1999, 52, pp. 1407-1420	
TG	44	Seidel et al., "Insemination of Heifers with Sexed Frozen or Sexed Liquid Semen," Website <a href="http://www.cvmbs.colostate.edu">www.cvmbs.colostate.edu</a> , Abstract, June 3, 1999, 2 pages	
TG	45	International Search Report for PCT/US2004/009903 dated 08/16/2004	

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TG	46	6,316,234	B1	Bova	11-13-2001

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TG	47	WO	01/68110	A	Oncosis	09-20-2001	
TG	48	WO	01/85913	A	XY, Inc.	11-15-2001	
TG	49	WO	02/19594	A	Arizona Board of Regents, Acting on Behalf of Arizona State University	03-07-2002	

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TG	50	SCHENK, J.L., et al., "Cryopreservation of Flow-Sorted Bovine Spermatozoa," Theriogenology, 1999, 52, pp. 1375-1391	
TG	51	International Search Report for PCT/US2005/026269 dated December 2, 2005, 7 pages	

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